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June 22, 2004

Via Express Mail

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 Elie H. Gendloff, Ph.D., Esq. Direct 212 336 8108 E-mail egendlof@arelaw.com

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Name: Elie H. Gendloff						
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Re:

U.S. Utility Patent Application Serial No. 10/624,080

Filed July 21, 2003

Title:

INHIBITION OF HIV-1 VIRION PRODUCTION BY

A TRANSDOMINANT MUTANT OF INTEGRASE

INTERACTOR 1(INI1)/hSNF5

Inventor:

Ganjam V. Kalpana

Our File: 96700/819

Dear Sir:

Enclosed please find the following documents for filing with the aboveidentified utility patent application in the name of Ganjam V. Kalpana, entitled INHIBITION OF HIV-1 VIRION PRODUCTION BY A TRANSDOMINANT MUTANT OF INTEGRASE INTERACTOR 1(INI1)/hSNF5, comprising the following:

- Submission of Information Disclosure Statement (2 pages); 1.
- Information Disclosure Statement by Applicant, Forms PTO/SB/08A 2. and PTO/SB/08B (2 pages total) with twenty (20) references cited therein and attached thereto (19 paper-copy references and 1 reference on CD-ROM); and
- 3. Return receipt postcard.

Please acknowledge receipt of the enclosed papers by stamping the enclosed postcard and returning same to us.

Respectfully submitted,

Amster, Rothstein & Ebenstein LLP Attorneys for Applicants 90 Park Avenue New York, NY 10016 212 336 8000

Dated: New York, New York

June 22, 2004

By:______Elie H. Gendloff

Registration No. 44,704

E UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. :

10/624,080

Applicants

Ganjam V. Kalpana

Filed

July 21, 2003

Art Unit

1645

Examiner

Not Yet Assigned

Docket No.

96700/819

Customer No.

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Elie H. Gendloff Name:

Signature:

SUBMISSION INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §§§ 1.56, 1.97, and 1.98, applicants enclose herewith Forms PTO/SB/08A and PTO/SB/08B, containing twenty (20) references which may be deemed relevant to the above-identified application, along with a paper copy of nineteen (19) of the references and a CR-ROM containing one reference (CHIN, A., University of North Carolina), cited therein. The enclosed items are made of record to assist the U.S. Patent and Trademark Office in its examination of the above-identified application. The Examiner is respectfully requested fully to consider the enclosed items, and independently to assess their teachings.

Submission of IDS Appl. No. 10/624,080 Filed dJuly 21, 2003 Amdt. dated June 22, 2004

No fee is deemed necessary for the filing of this Information Disclosure Statement. However, if any unanticipated fee is required to maintain pendency of this application, authorization is hereby given to charge any such fee to Deposit Account No. 01-1785.

Respectfully submitted

AMSTER, ROTHSTEIN & EBENSTEIN LLP Attorneys for Applicant 90 Park Avenue New York, NY 10016 (212) 336-8000

Dated: New York, New York

June 22, 2004

Elie H. Gendloff

By:

Registration No.: 44,704

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Description of information upless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known		
Oubstitute	5 101 101111 144011 10			Application Number	10/624,080	
INFO	RMATION	DIS	CLOSURE	Filing Date	July 21, 2003	
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Ganjam V. Kalpana	
(Use as many sheets as necessary)			ococcand	Art Unit	1645	
			ecessary)	Examiner Name	to be assigned	
Sheet	1	of	2	Attorney Docket Number	96700/819	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
	1	Biegel, J.A. et al., "Germ-line and acquired mutations of INI1 in atypical teratoid and rhabdoid tumors"; Cancer Res., Vol. 59, pp 74-9 (1999).	
	2	BUKOVSKY, A. et al., "Lack of integrase can markedly affect human immunodeficiency virus type 1 particle production in the presence of an active viral protease"; J. Virol., Vol. 70, No. 10, pp 6820-25 (1996).	
	3	CHENG, S.W. et al., "c MYC interacts with INI1/hSNF5 and requires the SWI/SNF complex for transactivation function"; Nat. Genet., Vol. 22, No. 1, pp 102-05 (1999).	
ENGLEMAN, A. et al., "Multiple effects of mutations in human immunodeficiency type 1 integrase on viral replication"; J. Virol., Vol. 69, No. 5, pp 2729-36 (1995). FLETCHER, T.M. et al. "Complementation of integrase function in HIV-1 virions"; EME Vol. 16, No. 16, pp 5123-38 (1997).			
	7	KINGSTON, R.E. et al., "ATP-dependent remodeling and acetylation as regulators of chromatin fluidity"; Genes & Dev., Vol. 13, pp 2339-52 (1999).	
8 Vitro Integrase Activity yet Fail to Integrate Viral DNA Efficiently during Infection"; J. Viro		LEAVITT, A.D., et al., "Human Immunodeficiency Virus Type 1 Integrase Mutants Retain In Vitro Integrase Activity yet Fail to Integrate Viral DNA Efficiently during Infection"; J. Virol., Vol. 70, No. 2, pp 721-28 (1996).	-
LEE, D. et al., "Interaction of E1 and hSNF5 proteins stimulates replication of human papillomavirus DNA"; Nature, Vol. 399, pp 487-91 (1999).			
	10	LEE, D. et al., "SWI/SNF complex interacts with tumor suppressor p53 and is necessary for the activation of p53 mediated transcription"; J. Biol. Chem., Vol. 277, No. 25, pp 22330-37 (2002).	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

considered, Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449/PTO				Complete if Known		
Capatitate for form (4407-10				Application Number	10/624,080	
INFO	DRMATION	I DIS	CLOSURE	Filing Date	July 21, 2003	
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Ganjam V. Kalpana	
(Use as many sheets as necessary)			ocacean/l	Art Unit	1645	
			scessury)	Examiner Name	to be assigned	
Sheet 2 of 2 Attorney Docket Number 967		96700/819				

		NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
	11	MOROZOV, A., et al., "Structure-function analysis of integrase interactor 1/hSNF5L1 reveals differential properties of two repeat motifs present in the highly conserved region"; Proc. Natl. Acad. Sci. USA, Vol. 95, pp 1120-25 (1998).		
	12	NAKAMURA, T. et al., "Lack of infectivity of HIV-1 integrase zinc finger-like domain mutant with morphologically normal maturation"; Biochem. Biophys. Res. Commun., Vol. 239, pp 715-22 (1997).		
	13	ROZENBLATT-ROSEN, O., et al., "The C terminal SET domains of ALL 1 and TRITHORAX interact with the INI1 and SNR1 proteins, components of the SWI/SNF complex"; Proc. Natl. Acad. Sci. USA, Vol. 95, pp 4152-57 (1998).		
	VERSTEEGE, I. et al., "Truncating mutations of hSNF5/INI1 in aggressive paediatric cancer"; Nature, Vol. 394, pp 203-06 (1998).			
complex"; EMBO. J., Vol. 15, pp 5370-82 (1996). WISKERCHEN et al., "Human immunodeficiency virus type 1 integrase: Effects of mutations of the complex of t		WANG, W. et al., "Purification and biochemical heterogeneity of the mammalian SWI-SNF complex"; EMBO. J., Vol. 15, pp 5370-82 (1996).		
		WISKERCHEN et al., "Human immunodeficiency virus type 1 integrase: Effects of mutations on viral ability to integrate, direct viral gene expression from unintegrated viral DNA templates, and sustain viral propagation in primary cells"; J. Virol., Vol. 69, No. 1, pp 376-86 (1995).		
	17	WU, D.Y. et al., "Epstein Barr virus nuclear protein 2 (EBNA2) binds to a component of the human SNF-SWI complex, hSNF5/lni1"; J. Virol., Vol. 70, No. 9, pp 6020-28 (1996).		
	18	WU, X. et al., "Human immunodeficiency Virus type 1 integrase protein promotes reverse transcription through specific interactions with the nucleoprotein reverse transcription complex"; J. Virol., Vol. 73, No. 3, pp 2126-35 (1999).		
	19	YUNG, E. et al., "Inhibition of HIV-1 virion production by a transdominant mutant of integrase interactor 1"; Nature Med., Vol. 7, No. 8, pp 920-26 (2001).		
*	20	CHIN, A., "On the preparation and utilization of isolated and purified oligonucleotides." Kathrine R. Everett Law Library of the University of North Carolina, March 14, 2002. (on attached CD-ROM)		

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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